

ABSTRACT

Method and device for rapid and high-power cold production

The invention relates to refrigeration using a thermochemical system based on the coupling of two reversible physico-chemical phenomena between a gas and a solid or liquid sorbent, one at low temperature (the LT phenomenon) and the other at a higher temperature (the HT phenomenon).

The LT phenomenon is a liquid/gas phase change of the fluid G or an absorption of the fluid G by a liquid sorbent. The HT phenomenon is a reversible sorption of the fluid G by a liquid or solid sorbent. The endothermic phase of the LT phenomenon takes place in a reactor thermally isolated from the ambient environment. The exothermic phase of the LT phenomenon takes place in a condenser in communication with the reactor in which the HT phenomenon takes place, the condensed fluid G then being transferred to the reactor in which the endothermic phase of the LT phenomenon takes place.